**THE GRILL:** BDPA co-founder Earl A. Pace Jr. talks about the reality of racism in the IT workplace and the delusion of 'colorblindness.' **PAGE 12**

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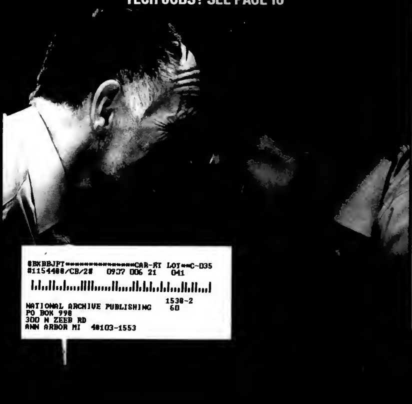
# CLASH OF THE GENERATIONS

**WHO WINS WHEN HARD TIMES PIT BABY BOOMERS AGAINST MILLENNIALS FOR THE SAME TECH JOBS? SEE PAGE 16**



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FEBRUARY 16, 2009
VOL. 43, NO. 7 $5/COPY

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*Source: IDC Quarterly Server Virtualization Tracker, October 2008.

**■ EDITOR'S NOTE**

Don Tennant

# Philly Blockbuster

IF A WINDSHIELD WIPER can inspire a major motion picture, then a computer cooling device is surely the stuff of Hollywood movies too.

Perhaps you saw *Flash of Genius*, the film about Robert Kearns, inventor of the intermittent windshield wiper, who waged a seemingly hopeless patent-infringement battle against the Big Three automakers. Equally unlikely is the story of Bill Corcoran, an MIS director in suburban Philadelphia. I talked with Corcoran last week, and he recounted a tale of persistence in the face of overwhelming odds that began with a brainstorm he had in the late '80s when he was working at a computer store.

A lot of computers of various brands were failing, and he recognized that a heat problem was the culprit. Corcoran came up with an idea for an auxiliary cooling fan that would slide into a drive bay on any computer without any retooling, and he teamed up with his buddy Gary Smith, a design engineer, to create a prototype. They filed for a patent that was ultimately granted in 1999.

In 2003, Corcoran discovered that two retail chains — Best Buy and Micro Center — were selling a cooling device that he was certain violated his patent. The device was manufactured by Dynatron in China and marketed by Antec, a computer peripherals wholesaler in Fremont, Calif.

Corcoran enlisted the aid of Steve Driscoll, the attorney he'd worked with to secure the patent, to address the violation. Driscoll and I spoke last week, and his account of the case was fascinating.

Driscoll said he sent letters to Antec, Best Buy and Micro Center's parent company, Micro Electronics, that were "essentially ignored." He then filed a legal complaint, expecting that the case would he settled "for something less than $100,000 and a reasonable royalty — 5% or so." But Antec and the retailers wouldn't even come to the table. Instead, they elected to bring their corporate might to bear in the courtroom.

**■ At a time when corporate greed and arrogance are hurting so many people, one IT manager refused to be defeated by it.**

If they expected Corcoran, Smith and Driscoll to cave, they miscalculated. "At this point, it wasn't about the money," Driscoll said. "We were not going to be intimidated by these guys."

The trial took place in the U.S. District Court of Eastern Pennsylvania in October 2007, and the case reads like a Hollywood screenplay. The arrogance of the defendants peaked when Otto Lee, a patent attorney and former mayor of Sunnyvale, Calif., testified for Antec. Sitting on the stand in this federal courtroom, Lee had the gall to refer to a "cease and desist" letter as an "eat s--- and die" letter.

The lawyers for the defendants, meanwhile, threw up every roadblock they could, and money was clearly no object.

"It was insane," Driscoll said. "I couldn't believe it when we found ourselves in court. Why were they spending all this money? It didn't seem to be a rational business decision."

And then it came out. Best Buy and Micro Electronics didn't care about

the money, because they were indemnified by Antec. And Antec didn't care, either. It was indemnified by Dynatron, the Chinese manufacturer. "That's how we all ended up there," Driscoll said. "It's a problem when you have somebody paying the bill who's not making the decisions."

In the end, Corcoran and Smith won the case — the jury returned a verdict of willful infringement. They'll receive a relatively modest sum for damages, probably less than $100,000. But just a couple of weeks ago, the court did something that's almost unheard of in a patent case: It awarded attorneys' fees. Dynatron is going to have to sell a lot of cooling devices to cover that tab, which is in excess of $460,000. I'd love to convey the defendants' response, but neither Antec nor Micro Electronics would speak with me, and Best Buy didn't even return my calls.

At a time when corporate greed and arrogance are hurting so many people, it's gratifying to see how an IT manager in Pennsylvania refused to be defeated by it. His lesson of perseverance is the blockbuster we needed. ■

**Don Tennant** *is* Computerworld's *senior editor-at-large. You can contact him at don_tennant@computerworld.com, and visit his blog at* http://blogs.computerworld.com/tennant.

## Computers Can't Replace Service 'Magic'

Don Tennant's Editor's Note in the Jan. 26 edition ["Spirit of Service"] landed right in the bull's eye. I have been saying for years that places like Circuit City and CompUSA, which used to have very knowledgeable staff, are living in a dream world if they think they can compete without that knowledge base as part of their service model.

I remember back in the early '90s walking into a Circuit City not knowing anything about car audio systems. The manager of the department described everything I asked about clearly, with both knowledge and passion. You could see all over his face that he loved what he was doing and was excited to help someone new get started. Today, such service "magic" is largely gone; until it comes back, there is no market for the Circuit Citys and CompUSAs of the world.

A monkey can scan a product at a checkout stand. More to the point, a computer can manage the transaction. If that's all these businesses have left, they are better off doing something else, because the consumer can get stuff cheaper online.

■ **Matt Goben,** *senior developer/analyst, Burns & McDonnell, Kansas City, Mo.*

## Column on H-1B Visas Was Wrongheaded

I totally disagree with Don Tennant's premise in his Feb. 2 Editor's Note, "Better Than That." H-1B visa holders do replace American workers and do hold down American wages.

There are very significant numbers of foreign workers "legally" working in the U.S. for foreign companies without even having to have a visa. They are here "temporarily," paid their foreign salary plus a daily stipend for being away from family, housed in group apartments, and even supplied with cars to get to and from work. They typically stay for a year and go back to their homeland with a raise and promotion for their "sacrifice."

■ **John Evans,** *manager of product engineering, Center Line, Mich.*

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**Is it time for IT managers to add "energy czar" to their list of job titles? Google, Yahoo and other pioneers explore the options.**

### Project Management For Networking Geeks

**Here's a crash course in project management for network professionals. These tips could help keep your next upgrade on track.**

### The Nerds Are Going To Tell Me How To Make Money?

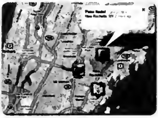
**Opinion: Former CIO Al Kuebler looks back and recalls that the best lessons are learned under pressure.**

### VoIP Goes Corporate

**Making the move to voice over IP can be expensive, but users say the flexibility and additional features are worth it.**

### How Latitude Locates You

**FAQ: Multiple wireless technologies help Google's new Latitude service figure out where you are.**



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# News Digest

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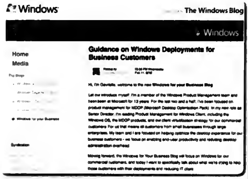
## THE WEEK AHEAD

**MONDAY: The GSMA Mobile World Congress, the world's largest mobile-technology trade show, starts in Barcelona. Also opening: the Outsourcing World Summit in Carlsbad, Calif.**

**TUESDAY: The Census Bureau is scheduled to issue its report on e-commerce retail sales for last year's fourth quarter.**

**WEDNESDAY: The "briefings" portion of the Black Hat DC 2009 security conference begins in Arlington, Va. Meanwhile, Hewlett-Packard plans to report its Q1 financial results.**



Guidance on Windows Deployments for Business Customers

OPERATING SYSTEMS

## Microsoft Gives Vista Adoption One More Push

MICROSOFT CORP. last week made its best — and perhaps final — case as to why companies should consider upgrading to Windows Vista, even as successor Windows 7 looms on the horizon.

Gavriella Schuster, Microsoft's senior director of Windows client product management, said any customers still running Windows 2000 "should definitely move to Vista." And with Microsoft due to end mainstream support of Windows XP in April, she urged users of that operating system to consider "how much money am I spending keeping XP alive vs. moving on?"

Schuster, who also wrote a post about upgrade issues on the "Windows for your Business" blog that Microsoft launched last week, said users who skip Vista risk having their software vendors end support for the applications they're running on XP.

In addition, Schuster noted, most companies may take up to two years after Windows 7's release to deploy it because of all the required application testing and employee training. As a result, Vista holdouts could go five years or more between upgrades, she said.

Forrester Research Inc. surveyed 962 IT decision-makers about their Vista plans last summer. In a report issued in late January, Forrester said 30% of the respondents were already deploying Vista, while another 27% planned to roll it out this year or in 2010.

But the survey was conducted before the worsening of the economic downturn. Paul DeGroot, an analyst at Directions on Microsoft in Kirkland, Wash., said that in the current climate, Microsoft's reasons for upgrading may not be enough to get users to move to Vista.

For example, the Fulton County government in Georgia tested the beta of Vista three years ago and initially planned to upgrade all 6,000 of its PCs by the end of 2007. But even now, Vista is running on only a small portion of its systems because of budget cuts forced by reductions in tax revenues.

"We're stuck," said Jay Terrell, the county's deputy director of IT. "We're going to wait for Windows 7, though it's not because we [want to] wait."

Papa Gino's Inc. looked at Vista for its 160 corporate employees but decided to wait for Windows 7, said CIO Paul Valle. And, he said, the Dedham, Mass.-based restaurant chain probably won't "get serious" about upgrading until Microsoft issues a second service-pack update for Windows 7.

*— Eric Lai*

### [illegible]

**AS PROMISED** late last month, Microsoft Corp. last week shut off the Windows 7 beta spigot for users looking to test the software.

Microsoft has not said when it will offer an updated build of Windows 7 to the public, although Steven Sinofsky, senior vice president in charge of the Windows engineering group, said late last month that the software will move directly from the current beta version to release candidate status.

In the past, Microsoft has run through multiple public betas of its operating systems before shipping a release candidate, the last step in the testing process.

The company did note that subscribers to the TechNet and Microsoft Developer Network services can continue to access the Windows 7 beta. The beta is set to expire Aug. 1, after which users must upgrade to a newer version or reinstall an earlier Windows release.

– GREGG KEIZER

**CAREERS**

# Workers Losing Jobs at IBM Get Overseas Option

SOME OF the workers being let go by IBM in the U.S. and Canada have a chance to remain with the company — if they're willing to move to Brazil, India, China or a dozen other lower-wage countries. But the expatriate employees would likely be paid at local salary rates.

IBM is offering the relocation option to employees who have been "notified of separation." It said that as part of the program, called Project Match, it will give workers financial aid to offset moving costs, assist them in securing visas and provide "other support to help ease the transition of an international move."

But people who agree to transfer must be "willing to work on local terms and conditions," IBM said.

The offer at least gives workers affected by the job cuts a choice, said Robert Kennedy, a professor at the University of Michigan and author of *The Services Shift*.

"What most of IBM's competitors are doing is just eliminating jobs and hiring people in India," Kennedy said. "I would say from IBM's point of view, they're trying to meet people maybe not halfway, but a quarter of the way."

However, programs like Project Match will likely appeal primarily to young people who don't have families or mortgages tying them down, he said.

IBM spokesman Doug Shelton acknowledged that the program "is not for everybody." But, he said, it is "just one of many options available to IBMers whose jobs have been eliminated."

Shelton previously described the cutbacks as "an ongoing process that we do throughout the year to match skills and resources with our client needs."

IBM hasn't disclosed the number of employees being let go, but Alliance@IBM, a labor union trying to organize IBM workers, said it has counted nearly 5,000 job cuts in recent weeks.

Ron Hira, an assistant professor at Rochester Institute of Technology and co-author of *Outsourcing America*, said that Project Match "is a clear indication that IBM plans on accelerating its massive offshoring of U.S. and Canadian jobs."

*— Patrick Thibodeau*

## Short Takes

The disclosed that personal data belonging to more than 45,000 employees and retirees was stolen after hackers broke into a computer server. The breach did not affect air traffic control systems.

last week released four February security updates, including patches for critical flaws in Exchange and Internet Explorer and a fix for a bug in SQL Server that was disclosed in December.

's shareholders have an extra week to vote on whether to spin off the firm's manufacturing operations because too few shares – 42% vs. the 50% required to reach a quorum – were voted at its stockholder meeting last week.

Former President and CEO Meg Whitman has taken a first step toward running for governor of California by creating an exploratory committee. Whitman co-chaired John McCain's presidential campaign.

# Forensics Firm Finds Private Data on Drives Sold on eBay

**A NEW YORK** computer forensics firm said that 40 of 100 hard disk drives it recently purchased in bulk orders on eBay contained private information, including corporate financial data, DNS server information, and personal e-mail and photos.

Kessler International said it purchased and evaluated the 40GB to 300GB PC drives from U.S. and Canadian sellers over a six-month period that ended late last month.

"We were surprised with the percentage of disks that we found data on," said Kessler CEO Michael Kessler. "We expected most of the drives to be wiped – to find one or two disks with data. But 40 drives out of 100 is a lot."

“

**MICHAEL KESSLER,**

Kessler's engineers had to use special forensics software to retrieve data from some of the hard drives. In other cases, however, sensitive information had not been overwritten or erased by the sellers.

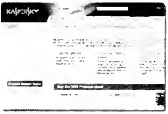
The researchers had expected to find personal information of individuals, "but we were surprised by all the corporate spreadsheets and business finance records we found," Kessler noted.

IDC analyst Charles Kolodgy suggested that users selling old PCs format their drives and use overwrite tools. Companies selling large disk drives on eBay should use industrial degaussers to erase all data, he added.

LUCAS MEARIAN

SECURITY

# Hackers Attack Antivirus Firm's Tech Support Site



KASPERSKY Lab technical support site was hacked late last month, exposing private customer information for 11 days, the Moscow-based security company admitted last week. The company learned of and closed the breach on Feb. 7 after it was notified by the Romanian hackers.

"This is not good for any company, especially for a company dealing with security," acknowledged Roel Schouwenberg, a senior antivirus researcher at Kaspersky, in a conference call last week. "This should not have happened."

The company had revamped the U.S. support site and relaunched it on Jan. 28. From that point until Feb. 7, the support database was open to attack, Schouwenberg said. The revamped site has now been replaced by the old version.

In a blog post, the hackers claimed that they were able to access a customer database that held e-mail addresses and software-activation codes by launching a SQL injection attack.

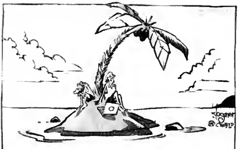
Schouwenberg confirmed that the database was hacked via SQL injection, but he contended that only the database's table labels were accessed, not the customer data. However, the e-mail addresses of about 2,500 customers and some 25,000 activation codes were at risk, he noted.

Schouwenberg said the hack was made possible by a combination of vulnerable code crafted by an unnamed third-party vendor and poor code review by Kaspersky.

Kaspersky hired Next Generation Security Software Ltd.'s David Litchfield, an expert on SQL injection attacks, to audit the systems. His report, delivered Feb. 12, confirmed Kaspersky's findings.

*— Gregg Keizer*

BETWEEN THE LINES *By John Klossner*



"HEY - AT LEAST WE STILL WORK FOR IBM."

**The U.S. Securities and Exchange Commission finalized a rule requiring companies to file their earnings reports electronically, using the Extensible Business Reporting Language.**

**President Barack Obama announced a 60-day review of federal cybersecurity programs and tapped a former Bush administration official to lead the process.**

**Start-up VMware Inc. launched the virtualization era by introducing desktop software that let users run multiple operating systems – or virtual machines – on PCs.**

# Global Dispatches

## Mozilla Joins EC In Microsoft Suit

**The European Commission earlier this month agreed to allow Mozilla Corp. to participate in its latest antitrust case against Microsoft Corp.**

**In a blog post, Mozilla Chairwoman Mitchell Baker said that the company will serve "as a resource to the EC as it considers what an effective remedy would entail."**

**The EC last month charged Microsoft with violating European antitrust laws by bundling its Internet Explorer browser with the Windows operating system.**

**Baker said that Mozilla, which coordinates the development of the open-source Firefox browser, agrees that tying IE to Windows "harms competition between Web browsers, undermines product innovation and ultimately reduces consumer choice."**

**Mozilla's "interested third party" status allows it to submit legal arguments to European regulators and participate in hearings.**

**Paul Mellor,**
*IDG News Service*

## Nokia Closes R&D Facility

**ESPOO, Finland – Nokia Corp. last week announced that it is shutting down its research and development facility in Jyväskylä, Finland, as part of an effort to cut costs by more than €700 million ($893 million U.S.) over the next two years.**

**About 320 workers at the facility will be laid off.**

**The cost-cutting plan also calls for temporary layoffs of workers at Nokia's manufacturing operations in Salo, Finland. The company said that it will lay off 20% to 30% of the 2,500 workers there on a rotating basis for periods up to 90 days.**

**Mikael Ricknäs,**
*IDG News Service*

**BRIEFLY NOTED**

**Intel Corp. last week announced that it is canceling the 2009 Intel Developer Forum in Taipei in a further effort to reduce costs. The company also cut back its April IDF event in Beijing from two days to one.**

**Dan Nystedt,**
*IDG News Service*

SECURITY

# Hackers Attack Antivirus Firm's Tech Support Site

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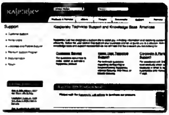

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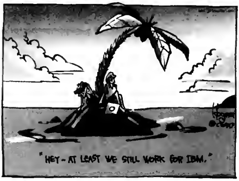
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**Paul Meller,**
*IDG News Service*

## Nokia Closes R&D Facility

**ESPOO, Finland – Nokia Corp. last week announced that it is shutting down its research and development facility in Jyväskylä, Finland, as part of an effort to cut costs by more than €700 million ($893 million U.S.) over the next two years.**

**About 320 workers at the facility will be laid off.**

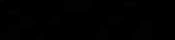
**The cost-cutting plan also calls for temporary layoffs of workers at Nokia's manufacturing operations in Salo, Finland. The company said that it will lay off 20% to 30% of the 2,500 workers there on a rotating basis for periods up to 90 days.**

**Mikael Ricknäs,**
*IDG News Service*

### BRIEFLY NOTED

**Intel Corp. last week announced that it is canceling the 2009 Intel Developer Forum in Taipei in a further effort to reduce costs. The company also cut back its April IDF event in Beijing from two days to one.**

**Dan Nystedt,**
*IDG News Service*



DANIELA MANGIUCA/FOTOLIA.COM

# Intel Looks to Pull Itself Out of Economic Hole

## Hit hard by the recession, the chip maker is pushing ahead with a $7 billion conversion to a new manufacturing process.

**By Patrick Thibodeau and Agam Shah**

INTEL CORP. is facing the same economic headwind that is buffeting most IT vendors. The chip maker's fourth-quarter revenue and profits fell 23% and a whopping 90%, respectively. And last month, Intel said it planned to close four manufacturing facilities and cut as many as 6,000 jobs.

Things aren't likely to get better anytime soon. Intel hasn't disclosed revenue projections for the current quarter, citing "economic uncertainty and limited visibility." Meanwhile, market research firm IDC last week forecast that shipments of microprocessors will decline by about 15% this year.

But the economic woes aren't stopping Intel from moving forward with a plan to spend $7 billion to refurbish three U.S. plants so they can produce chips using a new 32-nanometer manufacturing process. The planned investment, due to be made over the next two years, was detailed by Intel CEO Paul Otellini during a speech in Washington last Tuesday.

Later that day, Intel officials said at a press conference in San Francisco that the company will accelerate the shipment of its first chips with 32nm circuitry.

A pair of dual-core laptop and desktop processors built under the new manufacturing process are now scheduled to be released to PC makers in the fourth quarter. Those chips, code-named Westmere, will take the place of processors that were slated to be based on Intel's existing 45nm technology.

Jack Gold, an analyst at J.Gold Associates LLC, said the 32nm chips could give users a reason to upgrade their PCs, even if the economy is still in recession when the processors become available in systems.

Gold noted that for what will likely be about the same overall cost, users should get a substantial performance boost from the new chip technology, which Intel claims will result in faster, smaller and more energy-efficient processors.

There are other good reasons for Intel to push ahead with its plan to build up the 32nm manufacturing capabilities despite current economic conditions and the steep price tag.

Forrester Research Inc. analyst Frank Gillett said Intel's road map for making the move to 32nm circuitry was set long ago. Not moving ahead with the plan could blunt the company's hard-earned technology edge over rival Advanced Micro Devices Inc. and expose Intel to competitive risks, Gillett said.

In addition, business spending on technology might be rebounding by the time the new chips appear in systems. "It would be hard to argue that [Intel] shouldn't be making this investment," Gillett said.

Shane Rau, an analyst at IDC, agreed that the shift to 32nm technology should help stimulate demand for Intel's chips, potentially enabling the company to increase its market-share lead over AMD and other rivals.

Considering that IDC is predicting a decline in worldwide microprocessor shipments this year, gaining market share could be even more important to Intel from a business standpoint than it normally would be.

IDC said the drop-off began in the fourth quarter of 2008, with shipments falling 11.4% year over year and 17% from the third-quarter level. "After hinting at a decline last September, the market fell off a cliff in October and November," Rau said.

The plants that Intel will revamp for 32nm production are located in Oregon, Arizona and New Mexico. The company theoretically could have moved manufacturing of the new chips to a lower-wage country, and Otellini said foreign nations offered Intel hundreds of millions of dollars in financial incentives to do so.

But chip plants "are not driven by labor costs," Otellini said, adding that taking advantage of the existing U.S. facilities and their workforces will enable Intel to ramp up production of the chips more quickly.

"One of Intel's tremendous strengths is process control" in manufacturing, said Gartner Inc. analyst Leslie Fiering. And, she added, transferring those quality-assurance capabilities overseas would cost the company huge amounts of time and money. ■

**Shah** *writes for the IDG News Service.*

**« Some users say they can do all the work they need to do on netbooks like HP's Mini 2140.**

# Netbooks Worm Their Way Into Businesses

Netbook systems are primarily seen as consumer devices. But the pint-size PCs are starting to find a place at some companies. **By Eric Lai**

WHEN ADNH Compass, a 17,000-employee catering company based in Abu Dhabi, decided to give its branch managers new PCs late last year, it chose Acer Inc.'s Aspire One netbooks instead of full-size laptops.

"The users who are not that computer-literate were excited that something like this was being given to them," said Graham Smith, ERP software manager at ADNH Compass. But it was Smith himself who pushed for the purchase of the low-cost, downsized Aspire One systems. "Both our operations managers and logistics operators are always on the move, so it makes sense to have something light and portable," he explained.

Now Smith is working to enable users of the 2.5-lb. netbooks to access the company's Web-based SAP applications via 3G wireless connections. He said that will let the branch managers at ADNH Compass, which operates throughout the Middle East, do month-end inventory counts in real time as they walk through product storage areas.

Early adopters such as ADNH Compass are showing that some of the conventional wisdom about netbooks — that they're too fragile for on-the-go corporate users, too tiny for doing real work and too underpowered to run business applications — may not be so wise after all.

Of course, the conventional wisdom a year ago was that netbooks weren't ready for consumers, either. But 16 million were sold worldwide in 2008, according to ABI Research, which predicts that 39 million netbooks will be sold this year and that unit sales will reach 139 million by 2013.

Netbooks such as the Aspire One and Asustek Computer Inc.'s Eee PC typically have smaller screens and keyboards and use less powerful processors than conventional laptops and notebook PCs do. But they're also lighter and usually less expensive, with prices often starting at under $400.

By a wide margin, netbooks have primarily been sold to home users thus far. But they can do anything a traditional work computer does — at least, from the perspective of Stan Jamrog, a network security instructor at Holyoke Community College in Holyoke, Mass.

Jamrog brings a Linux-based Eee PC 1000 that he bought himself to HCC, connects it to the school's network and does his work on the netbook. "No one has scoffed yet," said Jamrog, who added that he and a full-time security professor at the college are thinking about pushing to require students to have netbooks.

Most PC vendors have avoided marketing netbooks to businesses, partly to avoid cannibalizing sales of higher-priced laptops, and partly out of fear that they might be laughed out of the offices of IT managers.

But after Hewlett-Packard Co. introduced its 2133 Mini-Note netbook for consumers and schools last year, "we did get quite a bit of interest from the business sector," said Kyle Thornton, category manager for business notebook PCs at HP.

In response, HP last month launched the Mini 2140, a renamed second-generation system that includes a variety of features developed with business users in mind. For instance, the high-end version of the 2140 comes with a six-cell battery that HP claims can last up to eight hours, or the equivalent of a full business day, on a single charge.

All of the 2140 models, which start at $499, sport a 10-in. screen with resolution of up to 1366 by 768 — the same as on a 32-in., 720p high-definition TV, according to Thornton. They also include an accelerometer designed to protect disk drives against data loss if a system is dropped, and HP says the machines' batteries can be recharged to 90% capacity within 90 minutes. "We're not peddling some cheap, plasticky toy," Thornton said.

**The only restriction from my IT manager is that I install the recommended antivirus software.**

[illegible]

He added that although tight capital-equipment budgets are slowing PC purchases at many companies in these recessionary times, the relatively low price tags of netbooks should enable users to sneak them in under the radar. "If a sales vice president wants to get 20 $600 netbooks at a time, that is well within the signature authority of many executives," Thornton said.

Rival vendors are responding. Asus, as Asustek is commonly known, earlier this month announced an Eee PC 1000HE model whose battery life it claimed is up to 9.5 hours, although the system has yet to become available. Meanwhile, netbook market leader Acer is reportedly readying enterprise models of the Aspire One with larger screens and longer battery life.

## MEETING BASIC NEEDS

But for end user Gabriele Indeiri, the original Eee PC 701 from Asus already fits the bill for the limited number of applications he needs to run as part of his job as an account manager at a U.S.-based software vendor.

"I'm usually at customers' sites, and I have just a few basic needs: read e-mail, use Salesforce.com and be able to show PowerPoints to customers, which I can do via my Eee's VGA port," said Indeiri, who asked that his employer not be named. A plus for the netbook is that it weighs only a shade over two pounds. "The [lack of] weight in my bag makes a difference," Indeiri said.

Even some IT professionals, who often look askance at new or nonstandard devices because of the security and tech support complications they can create, are relaxing that attitude in the case of netbooks.

"The only restriction from my IT manager is that I install the recommended antivirus software," said Benny Lo, a manager at a Hong Kong-based accounting firm that he asked not be named. Lo routinely uses his two Eee PCs on business trips or to work from home.

Malcolm Crabbe, a systems administrator at a restaurant supply company in London, said that the business replaced Dell Latitude laptops used by its 25 field engineers with Eee PC 901 systems three months ago.

Feedback from the users "has been very positive," said Crabbe, who also asked that his company not be identified. The netbooks, he noted, are "light enough to be held in one hand [and] compact enough to fit under the seats" in the vans used by field engineers — an attribute that he said helps prevent thefts.

But, Crabbe noted, the systems are also powerful enough to be used in reprogramming faulty customer equipment. The use of the netbooks is saving money and helping to speed up equipment repairs, he said, adding that the company hopes to get "two or three years from each Eee." ■

# HP Sees Netbooks in Windows 7's Future

**IN A VOTE of confidence for running Windows 7 on netbook PCs, Hewlett-Packard expects to offer three different editions of the upcoming operating system on its Mini netbooks.**

**That includes the Professional and Home Premium editions, which Microsoft Corp. has said will be the two primary versions of Windows 7 – and the low-end Starter edition, which will limit users to running three applications at a time.**

**Windows 7 is being built on the same code base as Windows Vista, prompting some fears that the new operating system may be too bulky to run well on netbooks. But despite such concerns, "we see it running very well on the [Minis], even with Aero turned on," said Kyle Thornton, category manager for business notebook PCs at HP. Aero is the compute-intensive graphical user interface in both Vista and Windows 7.**

**In addition to the three editions of Windows 7, HP hopes to continue preinstalling both Windows XP Professional and Vista Business on its netbooks, Thornton said. The company offers those two operating systems plus Novell Inc.'s SUSE Enterprise Linux with the Mini 2140 netbook that it introduced last month.**

**But in a sign of the initial focus on home users at the netbook level, business-oriented versions of Windows on netbooks "are not being supported by Intel or Microsoft at all," Thornton said. "We went out on a limb to put XP Pro and Vista Business on the 2140 and make sure it runs fine."**

**– ERIC LAI**

**■ THE GRILL**

# Earl A. Pace Jr.

## The **BDPA founder** talks about the **reality of racism** in the IT workplace, the delusion of **'colorblindness'** and the meaning of the **Obama presidency.**

## Dossier

**Name: Earl A. Pace Jr.**

**Title: Co-founder**

**Organization: Black Data Processing Associates**

**Location: Largo, Md.**

**Favorite nonwork pastime: Reading**

**Role model: Booker T. Washington**

**Favorite vices: Cheesecake and margaritas**

**Ask him to do anything but: "Lie."**

**In high school he was: "To quote my yearbook, 'brains and brawn.' "**

**Something people don't know about him: "I'm shy."**

**Pet peeve: "Disrespectful people."**

**Favorite book: Anything by Robert Ludlum**

**Fantasy dinner guests: Booker T. Washington, Martin Luther King Jr., Malcolm X and Barack Obama**

*Early in his career, when he was working as a programming manager at a financial services firm, Earl A. Pace Jr. went to a computer conference in Arizona where there were 200 attendees — 199 white people and him. Well aware of the opportunities in the exploding industry, he decided that ratio needed to change. That decision led to the founding, in 1975, of Black Data Processing Associates (BDPA), a national organization that now has more than 50 chapters and aims to provide what it calls "a pathway from the classroom to the boardroom."*

**Is racism in the IT workplace becoming less of a problem?** It is not less of a problem. It is, perhaps, more subtle or sophisticated. There are some promotions that have occurred. There are probably more African-Americans and other minorities that have been promoted to senior-level positions than existed when BDPA was formed. But the impact of those people at higher levels is marginal with respect to bringing other African-Americans up the pipeline to

*Continued on page 14*

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THOMAS POLK

**“As I function in the same industry that the majority [white] IT leaders function in, my access, my exposure, my opportunities are greatly limited simply because I am an African-American.**

*Continued from page 12*

replace or to supplement them.

To some degree, that's the result of insecurity in the position. In my early years, I was vice president of a financial services firm, responsible for hiring technical people, and I hired based upon ability. As it turned out, I probably hired an equal number of African-Americans and whites. I was at a meeting, and one of the board members of that company actually said to me, “Are you attempting to make the technical staff at our company the United Nations?” I could have been intimidated by that. My response was, “I hire based upon need and capability, not on what I see.” And that director walked away.

That wasn't subtle at all. But there are more subtle ways in which people who have moved to a higher position can [be made to] feel less secure. Not everyone in that position has a desire to push back. If they're going to be criticized for it, they're less likely to do so.

**What is your response to a white person who says he doesn't want to think of you as a black IT leader, he just wants to think of you as an IT leader – that he wants to be colorblind?** My response to him would be that is a very altruistic look at the racial situation here, but it is not a practical look; we are not there. It is a goal that we all want to achieve, but if he just looks at me as an IT leader, then his expectation of what I am able to do is unrealized.

The reality is that as I function in the same industry that the majority [white] IT leaders function in, my access, my exposure, my opportunities are greatly limited simply because I am an African-American.

I have had business opportunities where I have spoken with a prospect by telephone, and we have in essence agreed that this is the solution that would be best for that person's company, and all we had to do was sign the agreement. And when I showed up to get the agreement signed, the person has changed his mind about wanting to do the project. What other reason could there be? And it's happened to me several times.

**Does it still happen?** Oh, yeah. It still happens. So there are still some things that need to be done.

**What is your response to black IT professionals who say they just want to be thought of as IT professionals, not as black IT professionals?** That they are operating under a delusion.

**On the one hand, you're saying that racism is as much of a problem as it ever was, and on the other, you've said that your son has fewer scars because of the more multicultural environment. How do you explain that apparent inconsistency?** My son grew up and lives in an environment that is different from that of quite a few, and maybe even the majority, of African-American youth his age. My son grew up in Howard County, Md., a stone's throw from [the affluent community of] Columbia. He went to a high school that was a mixture of everybody. So his interaction with other students was not based upon separation and segregation. His friends are white, Hawaiian, African, African-American — everything. Perhaps if he went to school in the District of Columbia, his experience might be very different.

**What does the election of Barack Obama say about the state of race relations in the U.S., and what would you say to someone who maintains that the election demonstrates that we can finally move past the race discussion?** The election of Barack Obama tells me that we have overcome a significant impediment in the United States, that there was enough openness or need on behalf of the voters that they could look past skin color to what the potential was of the candidate. I hope that he is not being looked at as a Moses who is going to save everybody, so that people become complacent and figure that we've overcome these problems and now the racial divide has been crossed.

He is an agent of change who can inspire people. But unless we now double or triple our efforts to effect those changes, we will be deluding ourselves.

**What has to happen for there to no longer be a need for an association of black IT professionals?** Parity. During the '60s and '70s, in the civil rights era, [it was said that] along with your civil rights, you have to achieve your “silver” rights. Economic benefit gives you the power and ability to effect change. My contention — and maybe it's why I'm in business — is that if there is a foundation of businesspeople and business entities that African-Americans and other minorities can use as the basis for building their economic power, then these other impediments will drop by the wayside.

What I would like to emphasize, though, probably more than anything else, is that professional organizations are very, very necessary, particularly for African-Americans and other minorities. The necessity doubles when you get into economic circumstances like what we're in now. A professional organization gives you an opportunity to develop skills that you'll need in your workplace, but it does that in an environment that is supportive, as opposed to combative.

Now, with things economically going south, the network you develop will help you survive these downturns better than if you were out there doing it by yourself.

— *Interview by* **Don Tennant**

**OPINION**

### Ira Winkler

# Where Are the Feds On Cybersecurity?

A COUPLE OF RECENT EVENTS have shown how purposefully useless the U.S. government is with regard to cybersecurity. Every so often, the FBI parades some success stories through the media. Unfortunately, what's behind them are prosecutions for show rather than true demonstrations of tackling cybercrime.

For example, U.S. law enforcement had nothing to do with the takedown of McColo, the ISP that was home to major botnet controllers. It's telling that foreign criminal gangs felt comfortable enough to use a U.S.-based service to host their critical servers.

Despite the fact that the crimes enabled by McColo included child pornography, cyberextortion, distribution of malware, identity theft — really, just about every cybercriminal act known to law enforcement — the FBI had nothing to do with taking down the hosting service or making any arrests of those profiting from criminal behavior. It was up to independent malware researchers to identify McColo and work with upstream ISPs to cut it off from the Internet. That is despicable.

Before the takedown of McColo, I received more than 300 spams a day. After McColo was taken off the Internet, my spam volume was down to 50 per day. Now, a few days into the spread of the Downadup worm, my spam volume is up to 200 per day.

Judging from my analysis of the new spams I'm receiving, it is clear that this is the work of the same malware purveyors who previously used McColo. Depending on whose statistics you use, Downadup has infected anywhere from 6% to 30% of the PCs on the Internet.

And this time around, it is once again independent researchers who are trying to stem the growth of the new botnets by reverse-engineering the malware and determining the potential domains the infected systems will try to connect to. At their own expense, the researchers are registering hundreds of domains to try to disconnect infected systems from the botnets.

**■ Even though the crimes included just about every cybercriminal act known to law enforcement, the FBI had nothing to do with taking McColo down.**

To take a step back and explain the situation as simply as possible, once malware infects a system, it seeks out a controller. The controllers are referred to by Internet domain names.

With Downadup, because the malware writers knew that the domain names would be taken down as they were discovered, they programmed their algorithms to search for thousands of domains.

By reverse-engineering the malware, the researchers determined as many potential domains as possible and attempted to register them away from the botnet controllers. This is very time-intensive and expensive for independent Samaritans.

Again, the U.S. government is nowhere to be found in the process. Given the fact that millions of computers are being amassed for clearly criminal, and potentially terrorist, acts, the Department of Homeland Security, the FBI or some other agency should be taking the lead in this. Given past experience, these botnets will likely be the source of billions of dollars of criminal acts.

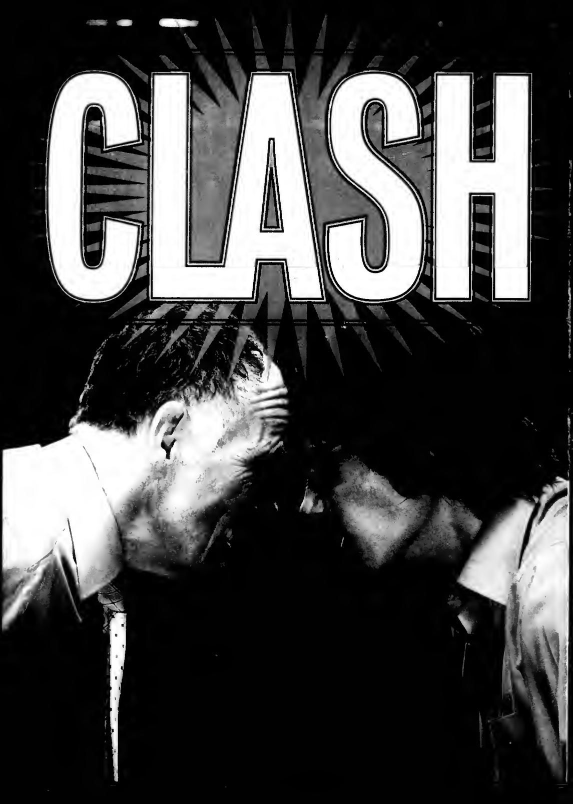
Clearly, the government has the resources to track the botnets and register the criminal domains. But because it hasn't acted, we instead have a random, distributed and poorly funded effort being performed by good Samaritans at their own expense.

One naive person suggested that the FBI is keeping the criminal systems running so it can infiltrate the criminal gangs. While there are some cases of that, the scope of the McColo and current malware-related crimes is astronomical. A hospital system crashed as a result of the malware infections. It would be gross negligence for the FBI to allow the attacks to continue if it had the ability to stop them.

Until the U.S. government decides to stop turning a blind eye to blatant crimes, cybercrime prevention and enforcement will remain a joke. ■

**Ira Winkler** *is president of Internet Security Advisors Group and author of the book* Spies Among Us. *He can be contacted through his Web site,* www.irawinkler.com.

# CLASH



# GENERATIONS

## A TWIST OF FATE HAS TECHNOLOGY VETS AND FRESH TALENT VYING FOR THE SAME JOBS.

### BY CINDY WAXER

WHEN BILL HORNE sauntered into an evening meet-and-greet being held by a local packaging company in search of fresh IT talent, the retired computer engineer knew his chances of leaving the event with a job offer were slim.

Now 56, Horne had spent 25 years working in the telecommunications industry before retiring from Verizon in 2002. Six years later, Horne says he knew that the IT field had changed dramatically, rendering him "out of step" with cutting-edge IT.

But after watching his retirement savings dwindle and the demand for small side projects disappear, Horne says he was "economically motivated" to re-enter the workforce. A casual meet-and-greet seemed like a perfect opportunity for the baby boomer to get his feet wet.

Horne was in for a shock, however. Expecting an informal recruiting event, he found himself in the thick of what "felt like a discotheque," surrounded by throngs of aggressive twentysomethings jostling for the attention of senior-level managers and barking into their cell phones.

"They were talking a lot, the noise was deafening, and the atmosphere was loud, confused and not very businesslike," Horne recalls.

His experience is far from unique. Throughout busy job fairs, crowded boardrooms and hectic IT departments across the U.S., a battle royal is brewing between aging baby boomers and fresh-faced millennials — two distinct generations with differing work styles, conflicting cultures and disparate skill sets.

On the one side stand the boomers: IT veterans valued for their unwavering work ethic, vast experience and institutional memory. On the opposing side, the millennials: Web 2.0 natives with technology in their DNA who would rather text and Twitter than talk and who have little patience with the way things have always been done.

IT managers are facing a tough predicament: a head-on collision between two vastly talented yet differing generations, both vying for full-time employment in a fast-shrinking economy. And it's happening everywhere. "Baby boomers coming back into the market is very common," says Brooke Kline, chief technology officer at iBank, a Costa Mesa, Calif.-based money management firm. "At the same time, we have just as many millennials coming out of college looking to explore new opportunities."

Deciding whom to hire — or lay off — requires sorting through a minefield of competing technical expertise, business acumen, cultural preferences and career expectations.

### NEW RULES

Baby boomers and millennials might have eased by each other in the workplace with no clash at all, as boomers gradually retired and millennials moved in and up the ranks. But a faltering economy changed all that. Over the past 15 months, the stock market has wiped out $2 trillion in Americans' retirement savings, according to the Congressional Budget Office. And even before the financial crisis hit full force, a February 2008 survey by job site CareerBuilder.com revealed that nearly three out of five U.S. workers age 50 or older were planning to look for work elsewhere after retiring from their current jobs.

And that can put them into competition with candidates their children's ages, says Horne, because once an employee retires, he loses his seniority. "I have realistic expectations that I'm not going to be appointed vice president," he says.

> "Baby boomers coming back into the market is very common.
>
> **BROOKE KLINE,**
> CTO, iBANK

As boomers struggle to resuscitate their careers and millennials flood the workforce, IT managers are having to rethink what it means to be an IT professional and to weigh the relative value of traditional and new-age skills.

That's not always easy. For example, millennials have a tendency to eat, sleep and breathe Web 2.0 technologies, and the value of that may not be immediately clear to a hiring manager. "When my boomer colleagues see me texting, blogging and using wikis, they see it as social" as opposed to work-related, says Brett Gardner Bonner, a 26-year-old engineering specialist at FedEx Corp. "But they're just tools I use to achieve higher results by gaining consensus and connecting with others."

Yet it's precisely these tools — and users' proficiency levels — that are dividing the generations into warring factions. "A millennial is more likely to communicate electronically or be more involved in social networking," says Sherry Aaholm, FedEx's vice president of IT. Take, for example, Bonner, who practically showers with his BlackBerry Storm and claims his familiarity with Web 2.0 tools is "almost innate." He says he regularly relies on wikis, Twitter and microblogging services like Yammer to communicate with colleagues and swap information. "Boomers prefer conference calls and e-mails, whereas I prefer texting and wikis," says Bonner.

But it's not just the Web. "There's a lot of new technology — like agile software development and open source — that young kids have picked up, whereas some of the older folks are still working on migrating," says Jeff Schuster, a recruiter at IT consulting company Halo Group LLC in Novi, Mich.

Boomers are better known for their expertise in more traditional technologies such as IT infrastructure and operating systems. That's good news for FedEx, which is always on the lookout for IT professionals with the skills needed to support its largely mainframe-based package-tracking system. But that type of expertise can limit boomers' prospects elsewhere, Schuster says.

And it's not just about skills; attitude also plays a major role in who gets hired. For example, millennials' eagerness to adopt new technologies — and some boomers' tendency to resist doing so — may make recruiters think twice before bringing on an older candidate

*Continued on page 20*

## MAKING PEACE *in a* CULTURE CLASH

**Information technology managers are discovering ways to avert bloodshed without sacrificing the wisdom of IT veterans or the prowess of fresh talent.**

**FedEx treats the boomer-millennial conundrum as part of its overall commitment to corporate diversity. To help aging IT pros and twentysomethings work together, FedEx has introduced informal programs in which experienced employees mentor junior counterparts. Veterans gain first-hand exposure to millennials' social-network-driven work habits, while junior workers receive a crash course in valuable technologies such client/server systems.**

**At Serena Software, IT manager Tom Clement says harmony entails "acknowledging employees as individuals" and addressing their unique needs, limitations and skills. For example, Serena's IT staffers may work from home when the need arises. And Web 2.0-challenged employees must spend an hour a week on Facebook to familiarize themselves with social networking tools.**

**Clement credits CEO Jeremy Burton for "trying to change the culture of our company to be much more relevant to the younger generation."**

**iBank encourages its employees to host web-conferences and dabble in instant messaging and Skype as part of CTO Brooke Kline's strategy to accommodate the opposing "life structures" of boomers and millennials. "We're trying to convey to [boomers] that you don't need a sit-down meeting to have a discussion," Kline says. The company also holds an informal open forum every Tuesday at noon for IT workers young and old.**

**Although mentor programs, flextime arrangements and weekly get-togethers can foster greater collaboration between boomers and millennials, everyone recognizes that intergenerational disparities take time to resolve.**

**– CINDY WAXER**

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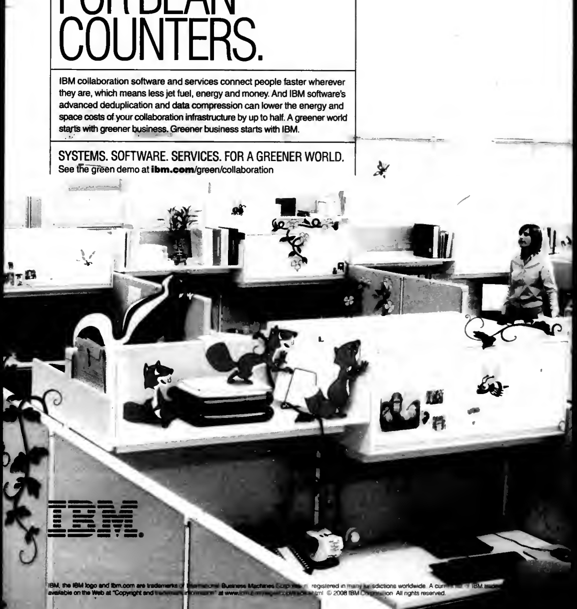

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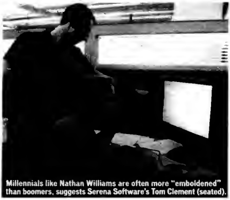


Millennials like Nathan Williams are often more "emboldened" than boomers, suggests Serena Software's Tom Clement (seated).

*Continued from page 18*

in need of extensive training. "The boomer folks are a little more fixed in their ways and not as open to learning a new set of technology skills," says Aaholm. "That's the difference with the millennial generation — they're willing to expand their skill base."

This eagerness to learn is giving many millennials a leg up on the competition. But there's a managerial flip side to consider. Young IT workers who are bold enough to take on new technologies are also more likely to be impatient with the constraints of traditional workplaces.

"There's an expectation on the part of millennials that the people who are managing them won't just see them as cogs in the machine but will be flexible with them and take their preferences into account," says Tom Clement, 54, an IT manager at application development firm Serena Software Inc. in Redwood City, Calif.

That kind of rugged individualism delivers enormous value to pioneering companies such as Serena, which is adopting innovative development trends, such as "business mashups" or composite applications, to stay ahead of the curve.

"It takes guts to build mashups, and that's what is great about the millennials," says Clement. "They've got the guts to go in and create a new application, whereas [boomers] aren't as emboldened."

Businesses that expect all employees to march to the beat of the same drummer, however, may have a tough time reining in millennials' more spirited work ethic and thirst for experimentation. And millennials' tendency to mix work with pleasure is another factor that could influence the hiring decisions of IT managers.

"Millennials really want a work-life balance that's seamless; they want to be able to communicate with their friends while they're working," says Kline. The older generation, in contrast, wants "to be productive from 8 a.m. to 5 p.m. and focus only on work." Those tendencies recently convinced Kline to hire a boomer — not a millennial — for a help desk maintenance job with the steady hours of 7:30 a.m. to 4:30 p.m.

"When we looked at the strengths and weaknesses of the candidates, we felt that a baby boomer was more equipped to handle that type of position," says Kline.

Cherry-picking aside, companies must still make some cultural adjustments to successfully mix millennials and boomers in the workplace. Your company's willingness to make those adjustments will affect its ability to recruit and retain talent.

> “Boomers prefer conference calls and e-mails, whereas I prefer texting and wikis.
>
> **BRETT GARDNER BONNER,** ENGINEERING SPECIALIST, FEDEX CORP.

"From a baby boomer's standpoint, it's a big change to see a really bright guy come in at 10:30 a.m. wearing shorts and sneakers and start work," says Kline. "Breaking down that barrier is a big challenge."

Just ask Horne, who dedicated his entire career to a single employer. "Kids coming out of school have no work ethic," he says. "They think life is a video game and that you get paid because you show up."

John Martin, a 62-year-old iBank quality assurance specialist, is more tactful. "My approach to working is much different than that of today's millennials," he says. "A great number of them think there are unlimited jobs out there, and so they approach work a little more casually than people of my generation."

### DEFINING 'PROFESSIONAL'

It's this perception among boomers that deeply offends Nathan Williams, a 30-year-old Serena software engineer who identifies with the millennial generation. "There's the misconception that we're just not professional. But the truth is, we have different ideas of what it means to be professional, and a casual attitude is part of that."

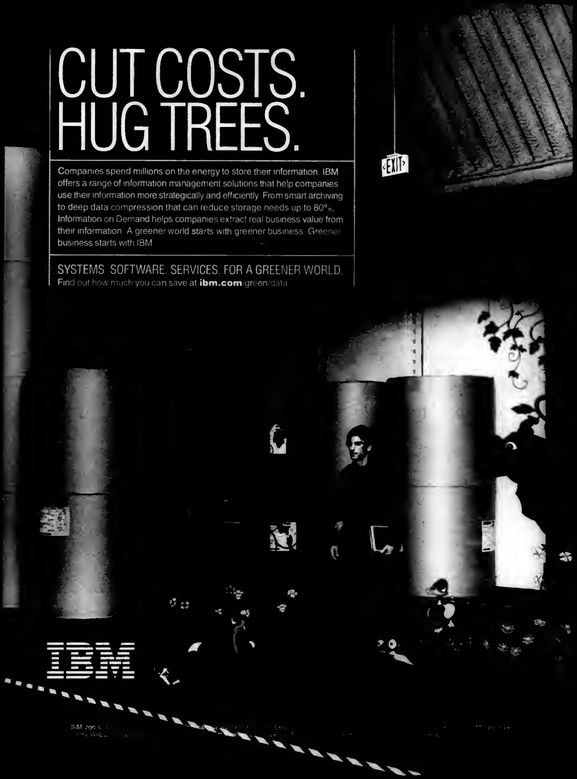
In fact, Williams says millennials' easygoing disposition encourages creativity and "a willingness to break boundaries" that contributes to tasks such as product development.

Millennials' casual approach to work can backfire in risky ways that managers also need to consider, however. According to a February 2008 study by security systems provider Symantec Corp., when asked whether they feel entitled to use whatever application, device or technology they like, regardless of source or corporate IT policies, 69% of millennials said yes while only 31% of other workers did.

Millennials and boomers may have to agree to disagree about what it means to be an IT professional today. But for IT managers, the trick is to weigh what each generation brings to the table and match the individual to the job. And that's a skill that they need to develop quickly. "The pressure on front-line managers nowadays with the millennials coming into the workforce is greater than it's ever been," says Lisa Orrell, a generational relations expert and author of *Millennials Incorporated* (Wyatt-MacKenzie, 2008).

And, she warns, "the competition is only going to get more fierce as time goes on." ■

**Waxer** *is a freelance writer in Toronto. Contact her at cwaxer@sympatico.ca.*



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« The T-Health amphitheater lets on-premises and remote participants break into groups.

# Grand Rounds ON A Grand Scale

## Audiovisual technology fosters better collaboration among doctors and a new way of teaching medicine. **By Mary K. Pratt**

DOCTORS HAVE long had a tradition of holding "grand rounds" to discuss patient cases and educate aspiring physicians.

The centuries-old practice certainly has its merits, but medical leaders in Arizona want to improve, update and broaden it to include a larger list of health care practitioners, such as nurses and social workers, regardless of their locations.

So the Arizona Telemedicine Program (ATP) drew on its extensive use of videoconferencing equipment to develop the Institute for Advanced Telemedicine and Telehealth, or the T-Health Institute, to facilitate a 21st-century way of teaching and collaborating across disciplines and professions.

This novel approach and use of technology put the T-Health Institute at the top of the Education & Academia category of the *Computerworld* Honors Program.

"Its specific mission is to use technology to permit interdisciplinary team training," explains Dr. Ronald Weinstein, co-founder and director of the ATP. "Now we're opening it up to a far broader range of participants and patients."

This initiative goes well beyond simply connecting two doctors through videoconferencing. It also enables individuals to meet in person in the newly built T-Health amphitheater. They can also meet remotely through finely tuned audiovisual equipment that can seamlessly segregate both in-person and remote meeting participants into smaller discussion groups.

### TEAMS IN TRAINING

Project leaders say the goal is to create much-needed discussion and collaboration among professionals in multiple health care disciplines so that they can deliver the best care to patients.

"It's the effort to be inclusive," Weinstein says. "Medicine is quite closed and quite limited, but we're counting on telecommunications to bridge some of those communication gaps."

He's not the only one preaching this message. The prestigious National Academy of Science's Institute of Medicine (IOM) has advocated for more interprofessional training and has encouraged educators to develop more interdisciplinary curricula and incorporate interprofessional team training into their programs.

In a 2003 report, the IOM stated that "although the academic environments of the various health professions generally are not interdisciplinary, practice environments are increasingly so, posing a serious disconnect."

One of the report's recommendations called for "developing and funding of regional demonstration learning centers, representing partnerships between practice and education."

Weinstein sees the T-Health Institute as one of the first such centers.

The institute is essentially a teleconferencing hub that enables students, professors and working professionals to participate in live meetings. Its technology also allows them to switch nearly instantly between different discussion groups as easily as they could if they

*Continued on page 24*

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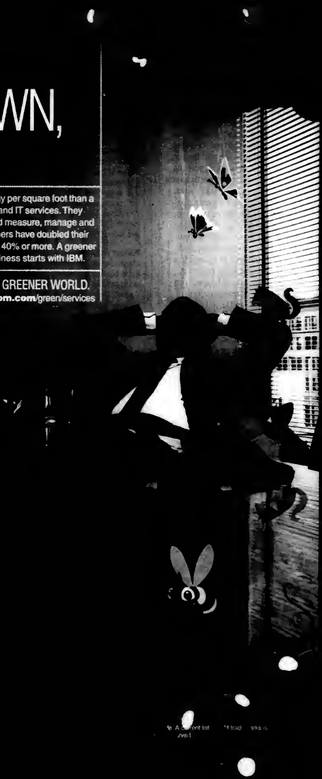

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AT A GLANCE

## T-Health Institute

PHOENIX

**The Institute for Advanced Telemedicine and Telehealth, also known as the T-Health Institute, manages and promotes teleconferencing capabilities to improve education and collaboration among people studying and working in various health care disciplines. The institute has received $2.1 million in state and federal funding.**

**PROJECT TEAM: Project champions include state Sen. Robert L. Burns, chairman of the Arizona Telemedicine Council; Stuart Flynn, interim dean and associate dean of academic affairs at the University of Arizona College of Medicine in partnership with Arizona State University; U.S. Sen. John Kyle; Dr. Ronald S. Weinstein, director of the Arizona Telemedicine Program; and Gail P. Barker, director of the T-Health Institute.**

**PROJECT RETURN: Project leaders say the initiative will help students and working professionals learn how to foster more collaboration and communication among the many professionals who provide health care in the U.S. Such cooperation could result in more efficient, less expensive and safer medical care.**

*Continued from page 22*

were meeting in person and merely switching chairs.

Today, the facility has two panels of four screens (there are plans to add more). Two of the eight screens are focused on the two so-called hot seats in the auditorium, and the remaining screens are reserved for participants calling in from other sites.

Those participants might be calling from sites already in the ATP network or they might be invited from outside the network as guests.

Attendees can participate in a single large meeting, or they can be broken into groups — one group of screens would be bordered by blue and the other by red to distinguish between the two meetings. Participants can be switched between the groups to shake up discussions.

This unique, flexible, agile setup directly supports the goal of providing interprofessional education. For example, participants in a meeting that involved medical students as well as nursing and pharmacy students could interact in various combinations so they could learn to work together and see the benefits of providing health care in a coordinated and collaborative manner, Weinstein explains.

"You just open up the world in terms of educational activity, research, case conferences," says Gail Barker, director of the T-Health Institute. "It breaks open any barriers to interprofessional education."

### A NEW WAY TO TEACH

The T-Health Institute is a division of the ATP, which Arizona lawmakers established in 1996 as a semiautonomous entity. The ATP operates the Arizona Telemedicine Network, a statewide broadband health care telecommunications network that links 55 independent health care organizations in 71 communities.

Through this network, telemedicine services are provided in 60 subspecialties, including internal medicine, surgery, psychiatry, radiology and pathology, by dozens of service providers. More than 600,000 patients have received services over the network.

Meanwhile, in 2004, as the IOM was pointing to communication gaps among health care professionals as a cause of significant problems, Arizona officials decided to create a new Phoenix branch for the state's medical school, the University of Arizona College of Medicine, in partnership with Arizona State University.

As part of that project, state leaders decided to build on the ATP's successes, and they identified the telemedicine program as an enabling technology for the educational program.

"We were selected by top leadership to think about how technology could make a difference," Weinstein says.

ATP leaders saw videoconferencing as a way to draw together students and professionals from the different health care disciplines in new ways.

"It's literally a new method of teaching medical students. It's a novel approach," says Jim Mauger, director of engineering at Audio Video Resources Inc., a Phoenix-based company hired to design and install the videoconferencing equipment for the T-Health Institute.

The T-Health Institute is on the campus of Arizona's new medical school in Phoenix. When it opened in 2006, every classroom on the campus was equipped with videoconferencing capabilities that tied back into a central control room, Mauger says. At that time, the T-Health amphitheater contained a standard teleconferencing setup, he explains.

From that base, Mauger says project leaders immediately started implementing the sophisticated technologies that are present today.

Because the ATP already had a statewide broadband health care telecommunications network in place, those implementing the infrastructure for the T-Health Institute could focus on getting the audio and video equipment needed for the job, says Michael Holcomb, the ATP's associate director for network architecture.

### BROADCAST BOOTH

The T-Health Institute uses a Tandberg 1500 videoconferencing system, and its video wall has 12 50-in. Toshiba P503DL DLP Datawall RPU Video Cubes. The video wall itself is controlled by a Jupiter Fusion 960 Display Wall Processor utilizing dual Intel Xeon processors. The Fusion 960 allows the wall to display fully movable and scalable images from multiple PC, video and network sources.

A dedicated control room holds the audio and video switching equipment and Tandberg coder/decoders to connect the amphitheater to other telemedicine locations. The T-Health Institute's equipment is compatible with all standards-based equipment at other videoconferencing sites, Mauger says.

The amphitheater has 17 student desks with individual videocameras, microphones and headphones. There's also a free-standing Wharton Lectern with a Crestron control panel, which facilitators can use to control how participants are grouped on the video wall. Personal voice channels are clustered based on how the participants are grouped on the wall.

Although Weinstein was

able to articulate this vision of interprofessional interaction — that is, he could clearly lay out the user requirements — implementing the technology to support it brought challenges, IT workers say.

Mauger says creating a videoconferencing system that linked multiple sites in one video wall wasn't the challenging part. The real challenge was developing the technology that allows facilitators to move participants into separate virtual groups and then seamlessly switch them around.

"The biggest challenges to making this work were the audio isolation among the separate conference participants as well as fast dynamics of switching video and moving participants to meetings," he explains.

To address those issues, Mauger says he customized the control system, a set of hardware and software tools from Crestron Electronics Inc. He also customized hardware from Extron Electronics, a maker of professional audiovisual systems integration products.

Mauger uses MediaMatrix from Peavey Electronics Corp. for audio processing.

"All this work took a couple of iterations, and we're still fine-tuning it," says Leela Doppalapudi, an ATP senior systems programmer and project manager for Phase 2 of the T-Health initiative.

Project leaders credited the team for having the expertise to get those components online. "It took all of our experience in videoconferencing to bring it all together and make it work," says Holcomb.

He says his team also encountered other challenges — ones that affect more typical IT projects, such as budget constraints, the need to get staffers in different cities to collaborate and the task of translating user requirements into actionable items. He notes that naming Doppalapudi as project manager in 2007 was instrumental in overcoming those challenges and getting the job done.

"It's necessary to have someone there on-site who understands [all the complex parts of the project]," Holcomb says. "Someone who is not just meeting with people every now and then, but someone who works with them on a daily basis."

Barker, who teaches in the College of Public Health at the University of Arizona and is a user of the system, led a trial-run training session at the T-Health amphitheater. She met with 13 people, including a clinical pharmacist, two family nurse practitioners, a senior business developer, two program coordinators, a diabetes program case manager and an A/V telemedicine specialist.

For that event, Barker says the biggest benefit was the time saved by having the facility in place; without the T-Health Institute, some participants would have had to make a four-hour round trip to attend in person.

Feedback from participants was positive, and there were no technical glitches during that first real test, Doppalapudi says.

Now the system is opening up to others in Arizona's health care and medical education communities. T-Health Institute officials say they see this as the first step toward a health care system that truly teaches its practitioners to work together across professional disciplines so that they can deliver the best, most efficient care possible.

"We think," Weinstein says, "that this is the only way you're going to create coordinated health care." ■

**Pratt** *is a* Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

## Get More From Videoconferencing

**GAIL BARKER HAS** noticed that participants who don't speak up during in-person meetings often become much more active in discussions held via videoconferencing.

Perhaps it's because they feel less intimidated when they're not physically surrounded by others or because the videoconferencing screen provides a buffer against criticism, says Barker, who is director of the T-Health Institute and a teacher at the University of Arizona's College of Public Health.

"Some people just seem more comfortable. That's our hypothesis, and we're testing it," she says.

When used poorly, videoconferencing can be stiff and dull, just a talking head beaming out across cyberspace without any chance to engage the audience.

But Barker and others are finding that when the technology is used in a thoughtful and deliberate manner, it has some advantages over real-life sessions because of its ability to draw more participants into the fray.

Of course, not all organizations can build something as complex as the T-Health Institute's system. But your IT unit can deploy other, smaller technologies to help encourage more robust participation from those using videoconferencing. Consider using the following tools and techniques:

**1. Two-way video.** A speaker who can't see his audience members won't know when they're not engaged, even if there's an audio link. But with two-way video, the speaker could see when boredom is setting in and adjust the presentation accordingly, says Wendy Wallbridge, president and executive coach at On Your Mark Corporate Coaching & Consulting Inc.

**2. Proper camera position.** Leela Doppalapudi, an ATP senior systems programmer and T-Health Phase 2 project manager, says his team experimented with camera placement to ensure that participants would have a natural-feeling visual connection.

**3. Seamless controls.** Doppalapudi says his team also kept things simple, automating whatever they could, so users wouldn't be distracted by controls.

**4. Alternative communication channels.** Attendees at one of Wallbridge's webinars used text chat to communicate with her individually. The option allowed one participant to feel comfortable enough to ask a question that she seemed reluctant to ask in front of the others. Wallbridge says the question allowed her to tailor the discussion to answer the question and engage that participant.

**5. Application-sharing technology.** This allows attendees to focus on the discussion yet still capture and share information, Wallbridge says.

**– MARY K. PRATT**

# Why Good Leaders Make Bad Decisions

## . . . and what you can do about it.

*Why do good leaders sometimes make spectacularly bad decisions? In this month's* Harvard Business Review, **Andrew Campbell** *and co-authors Jo Whitehead and Sydney Finkelstein discuss what they learned by examining 83 flawed decisions. Campbell, a director of the Ashridge Strategic Management Centre in London, talked with Kathleen Melymuka about how to recognize the danger signs and head off a bad call.*

**You write about two hard-wired processes for decision-making. The first is pattern recognition. How does it work – and sometimes mislead us?** Pattern recognition is just a process, like recognizing a face. What's interesting is that it's not like flicking through a photo album till you find the right match; it's more complicated in that the brain perceives many different bits of information from an event that it assembles in a pattern guided by previous patterns assembled in the brain. In IT, for example, if an exec is trying to resolve some problem and faulty software was to blame previously, he will see that as the problem if any of those symptoms are around. There is likely to be a bias.

**The second process is emotional tagging. How does that work and sometimes mislead decision-makers?** Experiences and thoughts are tagged in your memory alongside the emotions that accompany them. If you had a very good experience with a new ERP project, then you will have a strong emotional tag toward ERP.

**You also note a lack of checks and balances in our decision-making.** Yes. We may think that a system is not working because of poor documentation, but we don't really know *why* we think that. A lot of it has happened in our subconscious. Also, we make decisions one plan at a time. We assess the situation and conclude that the problem is lack of documentation and we should improve the documentation process. Then we run a little movie in our heads imagining what will happen when we implement that judgment. If our imagination can't find any fault, then we've made the decision and frequently don't seriously consider other options. But if we see a problem with that solution [later], then we say, "How else can I solve this documentation problem?" not "Is this really a documentation problem?" We take for granted our initial assessment.

**You've identified three "red flag" conditions – self-interest, distorting attachments and misleading memories – that lead to bias, and you suggest safeguards to head off bad calls.** Let's try this out in the case of a project sponsor trying to decide whether to kill a faltering project. Let's assume this person championed the project six months ago. So immediately, you've got distorting attachment, potential self-interest because the person might get egg on his face if the project were canceled, and you've also got potentially misleading memories because he will have decided the project was a good idea when he championed it. Those judgments are still sitting around in his brain, and it's difficult to dislodge them with new judgments even though there is new information.

### Flags

**Self-interest influences people's judgments even when they are self-aware and trying to be objective.**

**Distorting attachments cause positive or negative bias. An Wang's flawed decision to use a proprietary operating system in his new PC rather than IBM's emerging standard, MS-DOS, was based at least in part on his aversion to the company.**

**Misleading memories of a bad or good experience can impair your ability to make a balanced decision in that area in the future.**

Given that the bias would be toward continuing, the process I would suggest here is to let the project manager do the analysis and make the call. If he says kill it, no extra process is needed, since his bias was for keeping it going. If the project manager says they should give the project another shot, then I'd add some process here — bring in others for additional debate and challenge, or have the people above this person second-guess that choice because there is a risk that his thinking is biased.

**So you don't need a standard decision process in place; you just need to be aware of bias and kick in the process if the decision lines up with the bias?** Exactly. Instead of cluttering things up with elaborate decision processes, you can say, "You make the call. If you call 'Kill it,' end of process. If you call 'Stay with it,' we need more process because we recognize you might be biased."

The exciting thing about this is that we can put on the table a lot of things that are normally under the table: "I hear what you're saying, but do you think your thinking might be distorted because of such and such?" And also, we can make up the process to suit the decision challenge rather than have all this bureaucracy and process. ■

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# Bullish On PaaS

## Developers say 'platform as a service' is fast and elegant.

**By Mark Everett Hall**

PLATFORM AS a service, or PaaS, is the cousin of the better-known "software as a service." SaaS delivers a fully baked application you can subscribe to and use immediately; with PaaS, developers use free programming tools offered by the service provider to create applications and deploy them in the cloud. The infrastructure is offered by the PaaS provider or its partners, which charge by some usage metric such as CPU use or page views.

This development model is radically different from traditional approaches, where programmers install commercial or open-source tools on their local systems, write code, then deploy and manage the applications on their own infrastructures. But the PaaS model is rapidly gaining adherents.

Garrett Davis spent more than 30 years writing software for big insurance companies. But when he struck out on his own as an independent developer, he wanted to "get in on the ground floor of the new environment."

He turned to Google App Engine to build his work in the PaaS cloud. He says that "after many years of writing zillions of lines of Basic, then Cobol, then J2EE," App Engine's tools, especially the elegant Python, had great appeal. "The Python language doesn't force me to clutter up my code with curly braces and semicolons," Davis says.

### FASTER DEVELOPMENT

Developers can be extremely productive with PaaS, in part because they don't need to worry about defining scalability requirements, nor do they have to write deployment descriptions in XML, which are all handled by the PaaS provider.

Davis quickly produced payroll and property management applications. With AppEngine, he says, he needed only one month to reverse-engineer a workers' compensation application from one written over a period of 50 staff-months in J2EE.

Michael Iovino, CIO at Author Solutions Inc. in Bloomington, Ind., is also impressed with the time-to-market advantages of PaaS. Eight of his programmers built the company's iUniverse authoring application with Salesforce.com Inc.'s Force.com PaaS development environment. In only three months, the team delivered a full-fledged program with a complete set of business logic and multifaceted options that assist book authors with everything from text layout to marketing and distribution. "I'm pretty happy with the speed of development," Iovino says.

Ray Chance, executive director of ECMInstitute LLC in Fredricksburg, Va., points to another big draw for PaaS: low cost. His nonprofit group is a hub for the distribution of information about enterprise content management. It uses a custom RSS service built with Google App Engine to get the information out to the institute's 1,000 members.

Chance says that as long as you have fewer than 5 million page views per month and need less than 500MB of online storage, the Google service is free. More important, Chance says, is that his App Engine-built RSS application is deployed and maintained in Google's data center, which Davis describes as "the most sophisticated collection of silicon and storage on the planet."

But there are drawbacks to building PaaS software. For example, Chance says App Engine's Python can sometimes be a "struggle" because of its memory management limitations. And caching issues can limit how quickly RSS feeds can be fed from his site. Davis also says organizations might find it difficult to port J2EE apps to Google's restricted environment.

The Force.com environment is fairly robust, says Iovino. And additional development tools are available from Salesforce.com's AppExchange third-party software market. He adds that Force.com will need better code-management capabilities if the PaaS model is going to succeed in the long term, however.

Iovino also notes that because code executes in the Salesforce.com multitenant infrastructure, developers have to be cognizant of limitations. For example, they need to break up a long service call or data request into smaller, more manageable pieces. Iovino says developers quickly incorporate that notion into their thinking.

Mike West, an analyst at Saugatuck Technology Inc., says research indicates that PaaS, while in the early adopter phase, is attracting developers from businesses of all sizes because of its ROI.

"An increasing percentage of application development dollars are moving to PaaS," he says. ■

**Hall** *is a freelance writer living in Oregon. Contact him at mark.everett.hall@me.com.*

### DEVELOPING WITH PAAS

**Percentage of companies doing some PaaS development now and/or planning it in the coming year.**

| COMPANY SIZE | 2008 | 2009 |
|---|---|---|
| 5,000+ employees | 24% | 39% |
| 1,000-4,999 | 15% | 35% |
| 500-999 | 5% | 27% |
| 100-499 | 13% | 28% |
| 1-99 | 7% | 17% |

SOURCE: SAUGATUCK TECHNOLOGY INC., NOVEMBER 2008

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**SECURITY MANAGER'S JOURNAL | J.F. RICE**

# Another Delay, Another Black Eye for Security

## Projects are supposed to get **security reviews** at every phase of the project cycle. When that **doesn't happen,** you get **delays.**

# Trouble Ticket

**AT ISSUE: A project is about to go live, and it has never been reviewed by security.**

**ACTION PLAN: Jump in, take a look, and demand that the data involved gets encrypted.**

THIS WEEK, I ran into unexpected trouble. A project is ready to go live, but it never received a security review. And it has a lot of the elements that would go into a worst-case scenario: a third party, sensitive data, the Internet and no plans for encryption.

We've done a good job of getting security reviews into all phases of our project cycle, including the concept stage. That means we've been able to avoid most last-minute security roadblocks. So, how did this one fall through the cracks?

Maybe because it's a third-party application that's accessed over the Internet via software on end-user systems. People tend to think of that sort of implementation as a hands-off situation. Of course, most people don't think like a security manager.

When I look at what's planned with this implementation, I see data — in fact, employee payroll information — being sent to a third party. I see a looming nightmare, since the company that hosts the financial application in question seems to have no understanding of, or ability to provide, encryption.

As soon as I heard about this (secondhand), I asked for a meeting with the project manager. I couldn't believe what I was hearing. Employee names, Social Security numbers and pay amounts were going to be transmitted over the Internet, with no encryption.

I told the project manager that we'd need a minimum of file-level encryption, preferably at the point where the data is created (in this case, in PeopleSoft). And I added that it should not be decrypted until it is used, ideally within the third-party application itself. I'm willing to compromise on exactly where the data is encrypted within our perimeter, but once it gets out to the Internet, it needs to be protected, in an unreadable form.

I wasn't saying anything new. Last year, we forced file encryption on many projects that involved third parties handling our sensitive information. In fact, this same project manager was involved in one of those earlier projects, so he knows all about this. I'm disappointed that so little of my message got through the first time, but at least I don't have to spend a lot of time educating him this time around.

> **Last year, we forced file encryption on many projects that involved third parties.**

It's too late for this project, though. The contract has already been signed, and the implementation is ready to go live. After I got involved, we had a couple of discussions with the vendor, which seems to have no idea how to use encryption software.

### VENDOR WOES

The vendor's reps claim that it's processing unencrypted payroll data from other customers. I'd like to think that's a dubious claim, but I know better. In any case, I don't care what other customers are doing; I only care about protecting what's within my realm of responsibility.

So right now, we're struggling with getting the vendor up to speed on how our encryption will interface with its software.

Just to make things more challenging, our end users are expected to export data from PeopleSoft into a file on their desktops and use the third-party software client to import that data directly into the application. Educating our end users, who are not technically inclined, on the use of PGP or something similar will be an uphill climb. But so will getting the vendor to build encryption capability into its service offering.

By the way, after a little digging, I discovered that this vendor doesn't seem to have any large clients, so we get to be the guinea pig. I'm sure that once it establishes encryption capability, its application will be much more marketable. So it's to the vendor's benefit, really. But this would all be much easier if we had had this discussion at an earlier stage, such as during vendor selection.

Well, I guess I picked a career that doesn't have a lot of easy answers. I'm confident we'll get this resolved, but not without delays to the project and another black eye for security, as we reinforce our reputation for slowing things down. ■

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*This week's journal is written by a real security manager, "**J.F. Rice,**" whose name and employer have been disguised for obvious reasons. Contact him at jf.rice@engineer.com.*

**OPINION**

## Bart Perkins

# A Model Architecture

STANDARDIZATION of business and IT processes is increasing. Many corporations are building enterprise architectures, and a number of industries have formed standards for sharing data. For example, banks use Federal Reserve standards for clearing checks. The grocery industry uses the Uniform Communication Standard for communication among food manufacturers, wholesalers and retailers. Oil companies have standards that facilitate the purchase, shipment and trading of gas and oil.

The hotel industry is the first to be applying enterprise architecture concepts across an entire industry. When completed, the industry architecture (IA) will describe nearly all the business processes, applications, data and technology required to operate a hotel or resort. Hotel Technology Next Generation (HTNG), a global consortium of the industry's major stakeholders, is leading the effort.

The IA isn't envisioned as merely an agreement among IT staffers at large chains. It's an industrywide effort that must meet the needs of multiple stakeholders such as these:

- **Hotel chains.** Large chains own many hotel brands. For example, Marriott includes Ritz-Carlton, Residence Inn and Fairfield Inn. The consistent business practices specified by the IA will help individual hotels meet various requirements established by their parent brands.
- **Ownership companies.** These provide capital to buy, operate and refurbish hotel properties. They often own hotels in multiple chains. The IA will provide consistent operational data and financial reporting across brands and chains.
- **Management companies.** These manage the hotels' day-to-day operations. The IA will help them comply with brand standards regarding all aspects of daily hotel functions, such as registration, checkout, cleaning and maintenance.
- **Technology companies.** Manufacturers and service providers supply IT-enabled devices and services to hotels, from guest-room consumer electronics to POS devices. By clearly specifying hotel needs, the IA will help providers target products and services.

**The hotel industry is the first to be applying enterprise architecture concepts across an entire industry.**

- **Developers.** Architects and construction firms make many hardware decisions that affect hotel operations. The IA will describe capabilities required for hotel technology, such as for room locks, LAN wiring and HVAC controls.

HTNG's IA will accommodate hotel properties of all sizes, from small hotels with as few as 30 rooms to large resorts with thousands of rooms and elaborate dining, conference and leisure facilities.

Since HTNG is a global consortium, the IA will also accommodate full internationalization, including local languages, character sets, date/time formats, measurements and postal codes. It will allow for differences in laws governing subjects as diverse as taxes, food safety, financial reporting and passport control.

HTNG's architecture working group has released the first version of the IA's business process architecture, which uses The Open Group Architecture Framework. The first version is limited to small hotels with only sleeping accommodations. Future releases will expand the architecture to include additional functions required to operate large hotels and resorts.

The working group is currently specifying the applications required to support each designated business process. HTNG's application architecture is expected to be approved during the second quarter of this year.

HTNG's industry architecture will provide a template for processes and applications that can be used worldwide. An industrywide architecture will improve interactions across the hotel industry, with benefits for stakeholders, hotel employees and, ultimately, hotel guests.

Moreover, this first industry architecture may inspire other industries by providing a model that standardizes communication and information-sharing among diverse industry participants. ■

**Bart Perkins** *is managing partner at Louisville, Ky.-based Leverage partners Inc., which helps organizations invest well in IT. Contact him at BartPerkins@LeveragePartners.com.*

# Career Watch

**■ Q&A**

## Dick Gaither

The **president** of **Job Search Training Systems Inc.** and **co-author** of *Next-Day Job Interview* and *Wizard of Work* explains that **the time to maximize your earnings** is during initial salary negotiations.

**You're a strong advocate of negotiating for a higher starting salary. How is that possible when there's so much competition for every job?** Many job seekers erroneously believe that they can't negotiate wages, benefits or perks in a tight labor market for fear of losing a job offer. Because of this, many people enter new jobs feeling like they've been taken advantage of. As a result, they ultimately lose motivation to excel, which in turn means raises and/or promotions don't come as rapidly – or not at all.

Job seekers need to understand a few realities about the hiring and negotiation process. First, if you don't ask for more, you will never get more. Even if you don't get everything you want, getting a little bit of something is better than getting a whole lot of nothing. If you end up with nothing, you've lost nothing. Second, compensation negotiation isn't a zero-sum game. Both parties can end up winners instead of one having to lose so the other can win. Third, the employer wouldn't be looking if it weren't in need. This puts some immediate negotiation power into the hands of the job seeker who fits the needs of the employer.

There's a belief that every employer is looking for the cheapest worker it can find. In some instances this is true, but in reality most employers realize that paying a fair and equitable wage is one of the best ways to keep good workers, maintain quality and increase productivity.

**What if it's clear that there's just no wiggle room on salary?** If they can't give you any more money, negotiate for things that you'd spend money for, things that make you a more valuable employee, things that enhance your quality of life or things that can be turned into money later.

Examples of things you would spend money for are job-related tools, including computers and software; allowances for clothing, parking, gas and day care; or company products or promotional items the company might receive or distribute, such as event tickets. You can also ask if the company gets corporate product discounts on vehicles, credit card interest rates, food supplies, home furnishings, etc. If it does, negotiate for inclusion of these types of things.

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Things that make you more valuable might include an educational allowance, or ongoing and on-the-job training (preferably in Hawaii).

Quality-of-life items include reduced travel, a day of telecommuting or a work schedule that fits around family needs.

And things that can be turned into money later include stock options, profit sharing, deferred compensation, cost-of-living increases and bonuses for exceptional work.

**What sort of information should a person have at hand in order to negotiate more effectively?**

- A thorough knowledge of what makes you unique and a list of 30 to 60 of your most marketable skills.
- A list of previous accomplishments and how those accomplishments benefited the prior company's bottom line.
- Letters of recommendation from previous employers and co-workers highlighting your immediate value to the company.
- A solid understanding of the needs and problems you can solve at the company to which you're applying.
- A salary survey for people with your skills and experience in your general work locale.
- Considerable practice giving verbal examples of how hiring you will benefit the company's bottom line.

**– JAMIE ECKLE**

AGE COMPILED BY JAMIE ECKLE

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# SharkTank

**TRUE TALES OF IT LIFE AS TOLD TO SHARKY**

## See, It Worked!

This retail company is seeing dismal profits because of the recession, reports a pilot fish there, so management sets up a big meeting looking for ideas. "One of our fresh-faced managers suggested that part of the problem was worker productivity," says a pilot fish on the scene. "He had observed one person playing cards on her PC, and he was sure the problem was rampant throughout the company. The IT director chimed in and said this would be a perfect time to work on network security and began talking about pushing policies to the users to block games, etc." The new policy push gets a green light – and two months later, it's showing results. "Workers can no longer play games on their PCs," says fish. "We can also barely do e-mail, and we have problems launching needed applications such as word processing and spreadsheets. Start-up time from the log-in screen can take 15 minutes. A few people have had their systems hosed so badly that a complete rebuild was needed. But at least no one is playing games."

## Gee, Thanks, Boss

It's a few years ago, when smoking was still allowed at this aerospace company, and a construction project temporarily moved the programmers right next to a group of facilities people – many of whom smoked. "This bothered one of the programmers, who kept complaining to his manager – who said to keep escalating it," reports a pilot fish there. "The next week, this was an issue on the status report. Week after week, the programmer kept complaining to his manager until one day, the director of software engineering happened to be walking through. The manager was telling the programmer to keep writing this up as an issue, since 'the squeaky wheel gets the grease.' The director, not missing a beat as he walked by, said, 'Or replaced.' Luckily, the new area was completed that week, and all lived happily ever after."

## Penny Dumb, Pound Dumber

This big company tightens up on expense requests from mobile employees: no more high-speed internet service for home offices, no more wireless access plans for company laptops. "About the only approved access is dial-up," says a pilot fish feeling the pinch. "Or, if we're working at a client site, we're directed to use their network and tunnel out. Then comes the final straw: a warning letter from corporate IT about excessive charges for using dial-up services – using the only authorized VPN tool for remote access. But on the bright side, they *are* saving a boatload of money for the corporation."

■ *Sharky's looking for a boatload of true tales of IT life. Send me yours at sharky@computerworld.com. You'll score a sharp Shark shirt if I use it.*

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### Frank Hayes

# Vista vs. Money

TO VISTA OR NOT TO VISTA? If that's the question, the answer is money. Microsoft would really, *really* like IT shops to quit waffling and start migrating to the latest version of Windows. After all, Vista has been out for years now. It's stable. It's secure. The new software has even been paid for already under many volume licenses.

But even when that's true, the answer is still money.

It costs money to upgrade hardware. And to rebuild user desktops. And to retrain users. And to field a lot more help desk calls.

After two years, most big IT shops have already spent money testing important applications to make sure they'll run on Vista. But nobody who's still waiting has launched projects to fix custom apps that didn't pass the test. Those fix-up projects will cost money.

And at most companies, now is not a good time to ask for that money. For deploying a new PC operating system? What's wrong with the old one? No, what's *really* wrong with the old one — wrong enough that we can't get by without an upgrade this year?

Then there's the problem of risk — which also translates into money.

Things can go wrong with software, and users are IT's first line of defense against bugs, slowdowns, crashes or simply very bad ideas. Users find ways around the problems and keep doing their jobs. The more familiar the software is, the better users are at that.

But a new operating system makes it harder for users to figure out successful work-arounds. Besides, every user department is shorthanded and under pressure. There's no time for solving software problems. So fixes have to wait for IT's swamped help desk. Lost time means lost productivity and could mean lost sales or unhappy customers. In other words, lost money.

■ **Nobody has to convince the CFO to keep that old rust-bucket XP running. Don't laugh – it's paid for.**

What about the cost of keeping creaky old Windows XP running? Yes, that's money too. But even if that's as expensive as upgrading — which it almost certainly isn't — a "one more year with XP" approach doesn't require a budget line item for the upgrade. Nobody has to convince the CFO to keep that old rust-bucket XP running. Don't laugh — it's paid for.

Money, money, money; that's us.

Microsoft should understand that — just as we understand why Microsoft has started to push Vista with arguments ranging from the sincere to the screwy. (No, Steve Ballmer, most users won't ask their boss why they can't get Vista at work this year; they just want to keep getting a *paycheck* this year.)

For Microsoft, it's about money too. Whether or not the rumors are true that Windows 7 will arrive by the end of 2009, Microsoft needs to turn the crank on sales right now. And right now, Vista is the only game Microsoft has.

But for us, it's not the only game in town.

Look, we love making product decisions based on business value or technical quality, cute TV ads or product maturity. We may make bad choices, but we like having the choice to make.

But right now, for us, the to-Vista-or-not question isn't about improved security or glitzy transparent windows. It's not about Jerry Seinfeld or Mojave. It's not even about whether Vista is about to be obsolete, especially for IT shops still supporting a 2001 version of Windows that Microsoft is trying hard to make unsupportable.

It's about money — the money that IT can't get for a Vista upgrade. That's the simple, brutal reality we're facing.

And until that answer changes, there's really no Vista question at all. ■

**Frank Hayes** is Computerworld's *senior news columnist. Contact him at frank_hayes@ computerworld.com.*

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